REMARKS

Amendments to the claims have been made to respond to the issues and concerns raised in the Office Action, to clarify aspects in the specification and claims, and to refine claim language. The amendments are believed to be consistent with the disclosure originally filed. The amendments also have been particularly presented to avoid, where applicable, any admission or estoppel, generally, negatively affecting the scope of protection provided by the disclosure and claims of the present application, and also in a manner that avoids prosecution history estoppel, limitation of the scope of equivalences, or the like. Any amendment should not be construed as an admission regarding the propriety of any objection or rejection raised in any Office Action, and the Applicant reserves the right to pursue the full scope of the unamended claims in any subsequent patent application as may be appropriate.

Claim 28 has been amended. Claims 51-53 are newly added. Claims 28, 30-31, 33-40, 45-46, and 49-53 remain in the application. Each amendment is believed to have been made in accordance with Rule 121. However, should any unintended informality exist, it is requested that the undersigned be contacted by telephone so that it may be resolved as expediently as possible. It is believed the amendments fully respond to the issues raised in the Office Action. Further detail with respect to specific points raised in the Office Action is offered below.

The Office maintains a priority concern with respect to U.S. Provisional Application No. 60/211,093, filed June 12, 2000. The Applicant disagrees that the provisional case raises a priority issue, and believes the present application is entitled to priority to the provisional case. In particular, the provisional case teaches the particular combination of steps and elements set forth in the present claims. Applicant has previously established that the individual elements are supported by the provisional case. *See e.g.* Applicant's prior response dated October 31, 2007. That the provisional case contemplates the particular combination of these individual elements as recited in Applicant's claims is evident on the face of the provisional case itself. The individual

elements are not separately itemized or presented in isolation from one another. Rather, the provisional case is written in a logical narrative, wherein each element is presented in context of describing the invention as a whole. This can be seen specifically in the "Summary of Invention" section, embodying all claimed elements in a unified summary of the invention. This also can be seen perhaps even more clearly in the "Detailed Description of the Preferred Embodiments" section, where a single experiment embodying all claimed elements is described – naturally, the structure of a single experiment contemplates combination of all steps taken therein. Finally, the provisional case at page 5, third full paragraph, states that "the invention also should be understood as involving both management techniques as well as separable individual elements…", and at page 7 explicitly states that "the applicant(s) should be understood to claim at least… x) the various combinations and permutation [sic] of each of the elements disclosed". This is a clear and explicit teaching that the individual elements exist in a unified whole wherein they are separable from one another, and that the individual elements described are to be considered as combinable with one another. In view of the foregoing, a skilled person reading the provisional case would understand that the inventors contemplated combining the elements as set forth in the Applicant's claims.

The Office maintains an obviousness concern with respect to combinations of references relying on Hohenboken. The Applicant disagrees that Hohenboken poses any obviousness issues. Hohenboken was accepted for publication by the journal Theriogenology on September 29, 1999. *See* Hohenboken at page 1421. Accordingly, the effective date of Hohenboken cannot be earlier than September 29, 1999 (and indeed may be later if the journal did not reach the public until a later date, *see e.g.* MPEP §715 at section III(C)). In the present application, priority is claimed to U.S. Patent Application No. 09/001,394, filed December 31, 1997, now patented as U.S. Patent No. 6,149,867. The disclosure of the '394 application teaches techniques for sex sorting sperm cells and using such sex sorted sperm for artificial insemination. Accordingly, the effective filing date for subject matter of the present application involving the use of sex sorted sperm is before the effective date of Hohenboken, and therefore Hohenboken cannot be cited for teaching the sex sorted sperm aspects of the Applicant's invention.

Additionally, the specification of the present application at page 13, lines 9-10 indicates that a research project was begun in July, 1999. The research project is described on pages 13-51 of the specification and embodies all claimed elements and steps of the Applicant's claims. Naturally, all inventors have verified the veracity of the contents of the specification in sworn statements made in the Declarations accompanying the filing of the present application. Accordingly, the originally filed application is evidence that the inventors had possession of the invention as presently claimed at least as early as July, 1999. Because this predates the effective date of Hohenboken, as described above, Hohenboken cannot be cited by the Office.

The Office maintains an obviousness concern with respect to combinations of references relying on Petit and Hall. The Applicant disagrees that Petit and Hall pose any obviousness issues. However, Applicant has added new claims 51-53 to the application. In claim 51, Applicant has included the recitation of "beef cattle", and in claims 52 and 53 Applicant has clarified that inducing early puberty from about 250 days to about 270 days after birth includes inducing early puberty at 250 days to 270 days, inclusive. With respect to claim 51, Petit does not teach achieving puberty in beef cattle earlier than 12 months. With respect to claim 52, Applicant disagrees that the term "about 270 days" encompasses 9.5 months (or 290 days) as disclosed in Hall. The MPEP notes the court in *In re Woodruff* held that "about 1-5%" allowed for concentrations *slightly* above 5%, thus a claim limited to "more than 5%" was held to overlap. *See* MPEP §2144.05 [emphasis added]. Here, Applicant's entire claimed range (from about 250 days to about 270 days) is about 20 days. To encompass Hall's disclosure of 9.5 months (or 290 days), Applicant's claimed range would have to be extended by about an additional 20 days, effectively doubling Applicant's claimed range. Construing Applicant's use of the term "about" to include doubling Applicant's range would be unfair, especially in light of *In re Woodruff*, where the term "about" was held permissibly to include *slightly* extending a range. Nevertheless, with respect to claim 53, Applicant's deletion of the term "about" eliminates any potential overlap with 9.5 months, the earliest time at which puberty was induced in Hall. Moreover, Applicant disagrees that its claimed range (about 250 days to

about 270 days) is merely an optimum value of a result effective variable in a known process. More specifically, Applicant's claimed range does not overlap nor fall within any of the ranges disclosed by the references, and therefore cannot be merely the optimization of processes disclosed by the references. Accordingly, Applicant respectfully requests the Office withdraw its obviousness concern with respect to Applicant's claims 51-53.

Having addressed each of the concerns raised in the Office Action, the Applicant respectfully requests reconsideration and withdrawal of the rejections and objections to the application. Allowance of claims 28, 30-31, 33-40, 45-46, and 49-53 is requested at the Office's earliest convenience.

Dated this 1st day of August, 2008.

Respectfully submitted,
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